

EXECUTIVE OFFICER'S SUMMARY REPORT  
8:30 a.m., April 18, 2002  
North Coast Regional Water Board  
Eureka City Council Chambers  
531 K Street, Eureka, CA

ITEM: 1

SUBJECT: Public Hearing for Consideration of Potential Requests for Report(s) of Waste Discharge for Timber harvest Activities on and about Freshwater Creek, Bear Creek, Stitz Creek, and Jordan Creek.

DISCUSSION

On March 1, 2001 the Humboldt Watershed Council filed a petition with the State Water Resources Control Board (State Board). The petition asked the State Board to review the lack of action by the North Coast Regional Water Quality Control Board (Regional Water Board) on a previous petition dated April 17, 2000 filed with the Regional Water Board. The April 2000 petition requested action against Pacific Lumber Company for alleged improper logging practices in the Freshwater Creek and Elk River drainages. On January 23, 2002, the State Board adopted Order WQO 2002-0004, which remanded the issue back to the Regional Water Board for consideration and action in accordance with applicable law. The State Board Order also requires the Regional Water Board to report on any revisions to the Regional Water Board's Total Maximum Daily Load (TMDL) schedule for Elk River, Freshwater Creek, Bear Creek, Stitz Creek, and Jordan Creek. Further, WQO 2002-0004 requires the Regional Water Board to report on any actions or proceedings taken by the Regional Water Board with respect to the issues raised in the petitions filed with the State and Regional Water Boards by the Humboldt Watershed Council. As of the date of preparation of this report, the Executive Officer was scheduled to provide the first required progress report to the State Board at its April 10, 2002, workshop.

On February 28, 2002, the Regional Water Board reviewed the remand action and directed staff to pursue efforts in expediting TMDL development, obtaining water quality monitoring, and developing technical support information regarding these watersheds. The Regional Water Board also directed the Executive Officer to pursue mediation among the parties involved in these watersheds. At the same hearing, the Regional Water Board directed staff to return to the Board with further clarification on how the Executive Officer would exercise her judgment with respect to requesting reports of waste discharge in these watersheds.

The purpose of the hearing commencing on April 18, 2002, is to review the clarification being provided by the Executive Officer and staff. During this hearing, the Regional Water Board will also take comments and testimony from others regarding the appropriateness of reports of waste discharge for these watersheds and specifically on the clarification provided by the Executive Officer on exercising her delegated authority in this particular matter. The Regional Water Board further directed that the issues related to the Elk River watershed be heard in a separate hearing, in order to accommodate the recusal of Board member Selvage on that matter.

The public notices (Attachment 1) for this matter was very narrow in its scope in that it is confined to the matter of the five watersheds and to the single issue of the potential requests for report(s) of waste discharge.

This summary report is divided into six sections. Each section will provide information critical to the understanding of the waste discharge requirement process, the priorities for use of this regulatory tool in timber harvest settings, and in these watersheds in particular. The six sections are:

1. Review of the public notice for this hearing
2. Background on the process for requesting reports of waste discharge (ROWD)
3. Authority for making such requests
4. Status of the existing discharges and threat of discharges in four watersheds (Freshwater, Bear, Jordan, and Stitz Creeks)
5. Priorities for requesting reports of waste discharge in these four watersheds
6. Recommended action

## **1. REVIEW OF THE PUBLIC NOTICE FOR THIS HEARING**

On March 12, 2002, a public notice was issued announcing the hearing on April 18, 2002. A revised notice was issued on March 27, 2002. In both of these notices, the public was advised that the Regional Water Board may consider directing the Executive Officer to require ROWDs for these watersheds on any of several bases:

- Watershed-wide
- Sub-watershed wide
- Ownership-wide, by watershed
- Specific to individual timber harvest plans
- Any combination of the above

In addition, the Regional Water Board may elect to direct the Executive Officer to not request any ROWDs under the current circumstances. Time was allocated to various parties for the two hearings in order to provide structure to the hearings and allow the Regional Water Board adequate time to hear information and deliberate on the information. The time allocated to parties does not include questions by the Regional Water Board of each speaker nor their responses, and the time involving such exchanges would be in addition to the noticed, allocated time. Time was allocated to the major landowner, Pacific Lumber Company, conducting timber harvesting activities in these watersheds, and time was also allocated to the Humboldt Watershed Council, Environmental Protection Information Center, Freshwater Working Group, and the general public. In addition, the Resources Agency has been requested to give a brief summary of the Habitat Conservation Plan applicable to Pacific Lumber Company operations on these watersheds. As noted above, the scope of the hearing is narrow, and was clearly set out to determine "whether the Regional Water Board shall direct the Executive Officer to require submission of ROWDs on some, all or portions of the five watersheds."

Subsequently, the Regional Water Board has been requested by several parties to have additional time to present information. The Regional Water Board may exercise its discretion as to whether to allocate more time to any party on the day of the hearing. Factors the Board may consider in determining whether more time should be allocated to any party is the specific relationship of the party to actions taken on any of the watersheds, the need for structure in the hearing in order to allow adequate deliberation time, reasonableness, and other factors as justice may require. Staff recommends that the Board consider such requests for additional time at the beginning of the hearing and advise the involved parties of its decision at the start of the hearing. The hearing will commence at 8:30 a.m. on Thursday (April 18), but may be continued to Friday (April 19), provided that, due to facility constraints, each day the Regional Water Board must adjourn by no later than 5:00 p.m. The time period should allow the Regional Water Board to consider all comments and allow deliberation by the Board at the close of each hearing.

## **2. BACKGROUND ON THE PROCESS FOR REQUESTING REPORTS OF WASTE DISCHARGE (ROWD)**

The path to waste discharge requirements (WDRs) has many steps, but most commonly starts with a report of waste discharge. The path, however, does not always end with establishing WDRs, and may end with issuance of a waiver of WDRs. The following outline (summarized in Figure 1) sets out the steps:

### **A. Staff learns of a project, then either**

1. Project proponent may automatically file a report of waste discharge, or
2. Staff may request that project proponent submit a report of waste discharge whenever a discharge of waste will occur or is likely to occur.

CWC 13260 authority for request

CWC 13264 (a) requires no discharge of waste prior to filing the report

### **B. Staff receives a report of waste discharge, which staff reviews for completeness, and either**

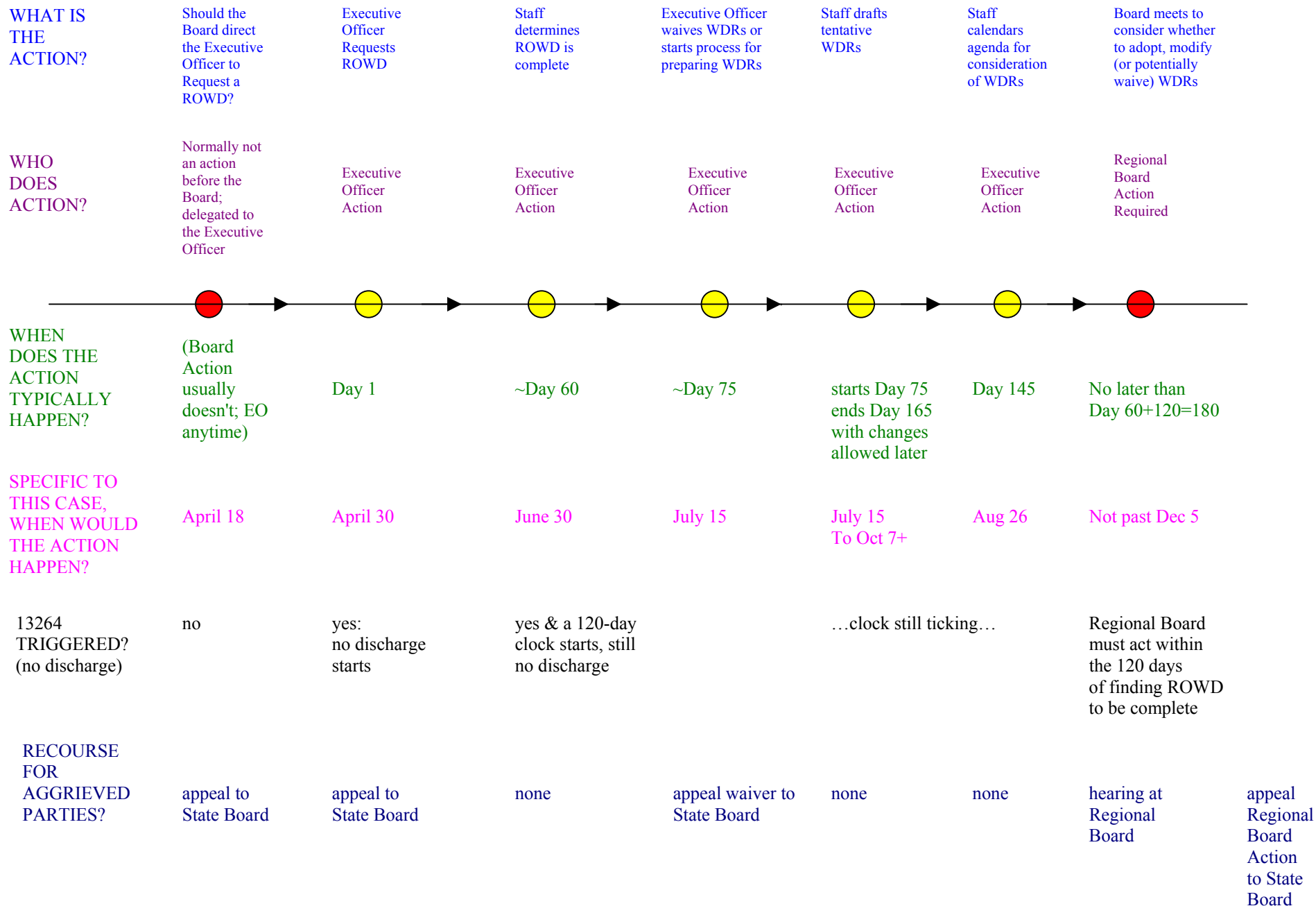
1. Advises the applicant that the report of waste discharge is incomplete, and requests additional information, or
2. Informs the applicant that the report of waste discharge is complete.

CWC 13260 for completeness of report of waste discharge

CWC 13264 (a)(2) requires no discharge for 120 days, plus additional time when California Environmental Quality Act requirements must be met.

### **C. Staff determines whether the project is subject to the California Environmental Quality Act (CEQA), and if so, which agency is acting as lead for purposes of CEQA**

1. If not subject to CEQA, then staff has 120 days from notification under B(2), above, to prepare tentative waste discharge requirements for the Board to adopt, or alternatively, staff may waive pursuant to Resolution 87-113 or else bring a



ROWD= Report of Waste Discharge

WDR = Waste Discharge Requirements

Waiver = waiver of Waste Discharge Requirements

- waiver to the Board for consideration. If 120 days pass without action, then the discharger may begin to discharge waste. CWC 13264(a)(2)(A)
2. If subject to CEQA and the regional board is the lead agency, then staff has 105 days to prepare a negative declaration (or one year to prepare an EIR) plus 120 days to prepare the waste discharge requirements for the Board to adopt. CWC 13264(a)(2)(B) or (C)
- D. Staff prepares (takes about 60 days to draft and process internal reviews) tentative waste discharge requirements and circulate (trying to give at least 30 days; required to give 10) the tentative order to the discharger, interested public, and coordinating agencies, advising this group of when the Board meeting would be held to consider the requirements.
  - E. The Board at a meeting considers the tentative waste discharge requirements on either the consent calendar or for discussion, and modifies, adopts, does not adopt, or continues the matter.

There are concerns regarding the Regional Water Board's regulation of timber harvesting through requesting ROWDs and issuance of WDRs. One concern is that requesting ROWDs for Pacific Lumber Company in these watersheds may be an initial phase followed by wide spread requests for ROWDs and WDRs in other watersheds across the region. As noted in the Water Quality Control Plan for the North Coast Region (Basin Plan), the Regional Water Board will, in the great majority of their activities, waive the need for reports of waste discharge and waste discharge requirements<sup>1</sup>.

In evaluating the historical use of ROWDs/WDRs, the Regional Water Board will find that this tool is used only very exceptionally in the timber harvesting process. The vast majority of actions are waivers of ROWDs/WDRs. The staff to this Regional Water Board reviews approximately 500 timber harvest plans (THPs) annually, and staff has neither the resources nor desire to issue and regulate WDRs on all THPs submitted.

The existing THP review process is currently being utilized by the Regional Water Board to obtain compliance with the Basin Plan and to seek protection of water quality. The THP review process does work to protect water quality for the majority of the THPs submitted. However, there are times when Regional Water Board staff are not successful at incorporating water quality protection into the approved THP and staff judges that a high likelihood exists for a Basin Plan violation to result. Even under these circumstances, staff attempts to work with the company to resolve issues to prevent a problem from occurring. However, under some of these circumstances it may be appropriate and necessary to request a ROWD in order to adequately fulfill this agency's mission to protect water quality.

As background in determining which activities warrant ROWDs/WDRs, the following outline illustrates staff's involvement through the THP review process:

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<sup>1</sup> Basin Plan, Section 4, NonPoint Source Measures, Guidelines for Implementation and Enforcement of Discharge Prohibitions Relating to Logging, Construction, or Associated Activities, Investigative and Coordinating Activities, Item B (page 4-31.00).

### THP Review Process

1. THP is submitted to CDF and a copy is sent to the Region Board;
2. Staff reviews THP on paper, and ranks threat to water quality;
3. Staff submits questions and comments to be addressed during First Review;
4. Staff attends Pre-harvest Inspection (PHI), if warranted and possible in scheduling;
5. Staff submits PHI report with recommendations for plan modification;
6. Staff attends Second Review Team meeting where a discussion of the PHI report recommendations occurs
7. Either of two actions results:
 

CDF approves the THP with recommendations;

CDF approves the THP without needed recommendations; Under this circumstance, staff considers:

  - Possible non-concurrence with CDF's action (5.4% of the time)
  - Followed by possible head of agency appeal of CDF's action (less than 1% of the time)
  - Other appropriate regulatory actions.
8. Conduct Active and Post Harvest Inspections.

Table 1 summarizes Regional Water Board activity for the calendar year of 2001.

**Table 1. Summary of 2001 Activities**

THPs Submitted	531
Initial Screening of THPs by staff	~ 510
First Review Comments by staff	396
Pre-Harvest Inspections (PHIs) by staff	333
THPs where all staff PHI recommendations are accepted	268
THPs where only partial or no staff PHI recommendations are accepted	41
Non-Concurrence filed by staff	30
Head of Agency Appeal requested by staff	5

As Table 1 illustrates, the majority of plan submitters and CDF accept Regional Water Board staff PHI recommendations. In general, staff judges that most of these recommendations are made simply to bring the plan into conformance with existing Forest Practice Rules, which are intended to serve as minimum standards, or the "floor" for environmental protection, with additional measures prescribed as circumstances warrant to ensure protection and compliance with other applicable laws. Controversy arises when Regional Board staff recommendations go beyond this "floor" through requesting additional measures beyond those considered necessary by CDF staff under the Forest Practice Rules and the Habitat Conservation Plan to protect water quality. At such times difficulties can arise in obtaining mitigation sufficient to comply with water quality laws through the THP review process.

The data indicate that roughly 80%, or 268 out of the 333 plans where staff conducted PHIs, result in acceptance of staff PHI recommendations for changes to a particular plan. In only forty-one cases were Regional Water Board staff PHI recommendations either not accepted or only partially accepted. Of these, only thirty non-concurrences were filed and only five head of agency appeals were transmitted to the State Water Resources Control Board for consideration. To date, no reports of waste discharge have been requested since 1978.

In summary, use of ROWDs/WDRs has been and will likely continue to be rarely used in the timber harvesting context. The process for determining when to request a ROWD will likely continue to consist of the following steps:

- i. Mitigate through the THP review process
- ii. Resolve disputes on mitigation with CDF or the company wherever possible
- iii. Evaluate the resources needed to directly regulate a particular timber harvesting activity through ROWDs/WDR process, and balance against the severity of the threat to water quality
- iv. On some limited subset of iii and where a significant threat to water quality does exist, request ROWD per the Basin Plan
- v. Prepare tentative waste discharge requirements for a subset of (iv) for the Regional Water Board to consider, or waive.

### **3. AUTHORITY FOR MAKING ROWD REQUESTS**

The authority for requesting ROWDs resides within the Porter-Cologne Water Quality Control Act (Porter-Cologne) (found at California Water Code (CWC) sections 13000 - 14958). Porter-Cologne states that a report of waste discharge is required for any person discharging or proposing to discharge waste that could affect the quality of the waters of the state. Porter-Cologne also allows for regional boards to waive the submission of a report of waste discharge. Specifically, Article 4. Waste discharge requirements, Section 13260 states, in part:

- (a) All of the following persons shall file with the appropriate regional board a report of the discharge, containing the information which may be required by the regional board:
  - (1) Any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
- (b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

Article 4. Waste discharge requirements, Section 13269 states, in part:

- (a) On and after January 1, 2000, the provisions of subdivisions (a) and (b) of Section 13260, subdivision (a) of Section 13263, or subdivision (a) of Section 13264 may be waived by a regional board as to a specific discharge or a specific type of discharge if the waiver is not against the public interest. Waivers for specific types of discharges may not exceed five year in duration, but may be renewed by a regional board. The waiver shall be conditional and may be terminated at any time by the board.

- (b) A waiver in effect on January 1, 2000, shall remain valid until January 1, 2003, unless the regional board terminates that waiver prior to that date. All waivers that were valid on January 1, 2000, and granted an extension until January 1, 2003, and not otherwise terminated, may be renewed by a regional board in five-year increments.

The process of evaluation would be identical to that discussed in the Basin Plan Framework, below.

#### Basin Plan Framework

The issuance of Waste Discharge Requirements (WDRs) for Timber Harvest Plans (THPs) is waived through Resolution No. 87-113 (Waiver Policy), which is contained in the Basin Plan. The Waiver Policy states explicitly that the Regional Board waives the filing of a ROWD and the issuance of WDRs for specific types of waste discharges contained in the Waiver Policy unless ROWDs are requested by the Regional Board for review and evaluation. Timber harvesting is listed as a specific type of waste discharge to be covered by the Waiver Policy.

The Waiver Policy also explicitly states, however, that the listed discharges must ensure compliance to applicable sections of the Basin Plan and that the action of waiving the filing of a ROWD and issuance of WDRs is conditional and may be terminated for any type of discharge at any time.

Basin Plan, Section 4, NonPoint Source Measures contains an Action Plan for Logging, Construction, and Associated Activities (Action Plan). This Action Plan contains the following two prohibitions:

1. The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.
2. The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could deleterious to fish, wildlife, or other beneficial uses is prohibited.

Basin Plan, Section 4, NonPoint Source Measures also contains Guidelines for Implementation and Enforcement of Discharge Prohibitions Relating to Logging, Construction, or Associated Activities (Guidelines). These guidelines were developed with the objectives of:

1. Defining the criteria for when the above prohibitions are violated;
2. Instructing Regional Water Board staff of procedures and actions in implementing the above prohibitions;
3. Advising all potential dischargers of the scope and intent of the prohibitions; and,
4. Advising all interested parties of the Regional Water Board intent to carry out its responsibilities in this matter in a reasonable and effective manner.



The Guidelines contain a Criteria section to assist Regional Water Board staff to determine if a violation of the above two prohibitions exists. The Criteria section excerpts eight water quality objectives from Basin Plan, Section 3, Water Quality Objectives that may apply to logging, construction or associated activities. A copy of the Action Plan and Guidelines are attached (Attachment 2).

The Guidelines contain another section regarding Investigative and Coordinating Activities. Item B of this section states:

- B. The Regional Water Board considers that implementation of the discharge prohibitions relating to logging, construction, or associated activities can provide appropriate protection to waters of the region from these sources of waste and, in the great majority of their activities, will waive the need for reports of waste discharge and waste discharge requirements. However, where investigations indicate that the beneficial uses of water may be adversely affected by waste discharges, the staff shall require the submission of Reports of Waste Discharge.

In summary, the Basin Plan waives ROWDs and WDRs for timber harvesting. This waiver is conditioned upon compliance with the Basin Plan. The Basin Plan contains prohibitions for timber harvest activities and contains criteria (water quality objectives) for determining violations of the prohibitions. The Basin Plan<sup>2</sup> then states that when the beneficial uses of water may be adversely affected by waste discharges (i.e., an exceedence of a water quality objective), a ROWD shall be required.

#### **4. STATUS OF THE EXISTING DISCHARGES AND THREAT OF DISCHARGES IN FOUR WATERSHEDS (FRESHWATER, BEAR, JORDAN, AND STITZ CREEKS)**

Pacific Lumber Company, Scotia Pacific Company, LLC, and Salmon Creek Corporation are all subsidiaries of MAXXAM, Inc. These companies (hereinafter referred to as Pacific Lumber Company) collectively own approximately 211,700 acres in Humboldt County, California, encompassing lands within 22 watersheds, including the Freshwater Creek, Bear Creek, Jordan Creek, and Stitz Creek watersheds. Pacific Lumber Company's ownership is summarized below (Table 2). The portions of the four watersheds that are not owned by Pacific Lumber Company are owned by numerous landowners with smaller parcels in the lower reaches of each watershed.

**Table 2. Pacific Lumber Company Ownership by Watershed**

Watershed	Watershed Size (acres)	Ownership (acres)	Percent of Watershed
Freshwater Creek	19,892	15,400	77%
Bear Creek	5,446	5,174	95%
Jordan Creek	3,072	3,011	98%
Stitz Creek	2,587	2,587	100%

<sup>2</sup> Note: These Basin Plan provisions were adopted through a rule-making process, and have been approved by the State Water Board and the US Environmental Protection Agency. Changes to Basin Plan language requires notice, public hearings, preparation of CEQA documents, and re-approval by the State Water Board, Office of Administrative Law, and the US Environmental Protection Agency.

Pacific Lumber Company conducts timber harvesting, forestry management, road construction and maintenance, and related activities on the lands within its ownership. During the decade from 1987 to 1997, Pacific Lumber more than quadrupled the rate of timber harvest on its ownership in three of the watersheds, all but Stitz Creek, over the rate of harvest which occurred during the period from 1974 to 1987 (Table 3).

**Table 3. Rate of harvest for recent decade (1987-1997) and previous photointerpretive period (1974-1987).**

Watershed	Total Watershed Ownership	1974-1987			1987-1997		
		Total Harvested Acres	Annual Rate of Harvest		Total Harvested Acres	Annual Rate of Harvest	
	(acres)	(ac/period)	(ac/yr)	(% ownership/yr)	(ac/period)	(ac/yr)	(% ownership/yr)
Freshwater Creek	15,400	2064	159	1.0%	7,365	737	4.8%
Bear Creek	5,174	671 <sup>3</sup>	52	1.0%	2,231 <sup>4</sup>	248	4.8%
Jordan Creek	3,011	273	21	0.7%	1,150	115	3.8%
Stitz Creek	2,587	1,250	96	3.7%	704	70	2.3%

Corresponding with the increased rates of harvesting and other harvest-related activities, residents of Freshwater Creek and Regional Water Board staff began noticing adverse impacts to surface waters and their beneficial uses within these watersheds, resulting from increased inputs of sediment. Residents reported that water became very turbid even during minor storms, and the intensity and duration of flooding increased significantly. During the winters of 1995/1996 and 1996/1997, in particular during the latter winter, numerous large landslides occurred within these watersheds, delivering significant quantities of sediment to watercourses within these watersheds.

On February 11, 1998, the California Department of Forestry and Fire Protection (CDF) informed Pacific Lumber that it had determined after discussions with representatives of the California Department of Fish and Game (DFG), the California Geological Survey (CGS), and the Regional Water Board, that each of the four watersheds had been significantly cumulatively impacted by sediment discharges. In addition, stream aggradation during the 1996-1997 winter had eliminated or significantly reduced fish habitat in these watersheds.

Agency representatives determined that timber harvest and related activities contributed significantly to the documented adverse impacts. Technical reports submitted by Pacific Lumber in response to various orders, requirements, and requests by the staff of the Regional Water Board and CDF confirmed staff's earlier observations, demonstrating that timber harvesting and related activities were associated with increased landsliding and sediment generation and deliveries.

<sup>3</sup> Rate of harvest information for the 1974-1987 period in Bear Creek is based on information provided by Pacific Watershed Associates, (i.e., as of 1997, 37% of the watershed had been harvested since 1982). A weighted average was used to calculate the total harvest acres.

<sup>4</sup> Total harvest acres are reported for the years 1988-1997, and are based on data provided by CDF.

During this period, Pacific Lumber did not always comply with the provisions of the approved plans and/or the Forest Practice Rules (FPRs). From 1990 to 1997, CDF issued approximately 230 violation notices to Pacific Lumber for activities on Pacific Lumber's ownership. Of these 230 violations, 59 occurred in the Freshwater Creek watershed, 7 occurred in the Bear Creek watershed, and 54 occurred within the Eel River watershed (which includes the Jordan Creek and Stitz Creek watersheds). Regional Water Board staff reviewed these violations and determined that a significant number of these violations of the minimum standards of the FPRs resulted in discharges or threatened discharges of sediment to receiving waters within these watersheds.

The Habitat Conservation Plan (HCP) and Sustained Yield Plan (SYP) was developed for the Headwaters Forest Project, and completed in 1999. HCP "compliance monitors" periodically inspect selected timber harvesting plans to determine compliance with portions of the HCP/SYP. The compliance monitors summarize and report such findings quarterly and annually. Staff has requested copies of these public reports, but has yet to receive them. These reports will be provided to the Regional Water Board upon receipt, hopefully before April 18 to be entered into the hearing record.

After two years of postponement or limiting harvesting in some watersheds, Pacific Lumber Company is now proposing and conducting timber harvest practices at rates similar to or higher than those employed prior to the 1995/1996 and 1996/1997 winters. High rates of harvest are generally associated with increased sediment discharges, which potentially could impede recovery of watersheds, or add to existing impairment.

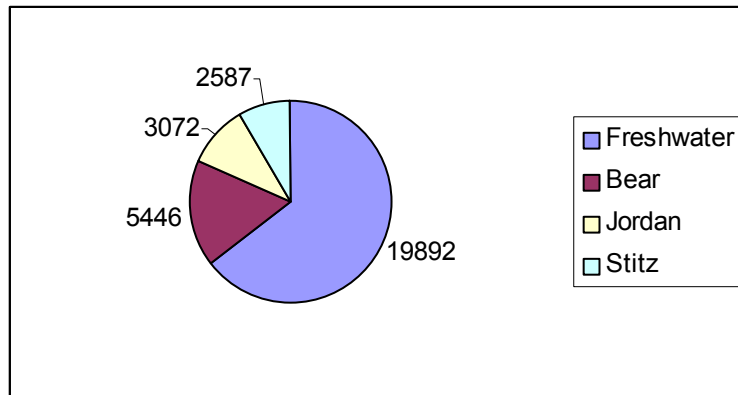
**Table 4. Harvest Acres proposed in THPs submitted by the Pacific Lumber Company since January 1, 2000.**

Watershed	Rate of Harvest	
	(acres/year)	(% of ownership/year)
Freshwater Creek	500 <sup>5</sup>	3.2%
Bear Creek	334	6.5%
Jordan Creek	162	5.4%
Stitz Creek	77	3.0%

Pacific Lumber Company states that the existing interim prescriptions and other requirements of the HCP and the Forest Practice Rules provide added mitigation and adequate protection for any future impacts from its harvesting and related activities.

GIS images are included as Attachment 3, and depict the THPs that have been harvested from 1990 through 1999 (for all watersheds) and THPs that are in the approval process or are currently being operated from 2000 through 2002 (for Freshwater Creek watershed only).

<sup>5</sup> CDF imposed rate of harvest. Actual harvest acres proposed in THPs since 2000 is 1,009 acres per year, or 6.6% of the Pacific Lumber Company's Freshwater Creek ownership per year.



**Figure 2. Estimated Acres and Relative Size of Freshwater, Bear, Jordan and Stitz Creeks.**

Freshwater Creek:

Pacific Lumber Company owns 77% of the Freshwater Creek drainage, excluding the sub-watershed of Ryan Creek, which is tributary to the estuarine system of Freshwater Creek/Slough<sup>6</sup>. The 1974-1987 annual harvest rate by Pacific Lumber Company in this watershed was 1.03% of its ownership, which was accelerated to 4.8% of its ownership per year in the 1987-1997 decade. About 37% of the total watershed was harvested during the 1987-1997 decade. These land use activities combined with other uses and natural sediment inputs have lead to a significantly cumulatively impaired watershed from sediment.

Since early 2000, Pacific Lumber Company has submitted 24 THPs proposing harvest in the Freshwater Creek watershed. In 2000, CDF provided Pacific Lumber Company with a list of remaining information needed from the company in order to begin approving those plans. In response to CDF's request, Pacific Lumber Company submitted information, including a flooding analysis which, when peer reviewed, was shown to have a number of flawed assumptions and methods.

Regional Water Board staff have participated in the review of the majority of the 24 Freshwater Creek THPs, and have recommended that (1) CDF require completion of Level II watershed analysis initiated in 1999 (or compliance with the Regional Water Board's January 7, 1999 13267 order) prior to permitting harvest on these plans; (2) that the plans employ low impact silvicultural practices, and (3) that instream water quality monitoring be conducted. Generally, these recommendations have not been accepted as part of the review team process, and Level II watershed analysis has yet to be completed for the Freshwater Creek watershed. Further, CDF and Regional Water Board staff are still working to resolve the issue of instream water quality monitoring. CDF has recently determined that 500 acres per year (2.5% of the watershed, and 3.2% of the Pacific Lumber Company watershed ownership) of clearcutting in the Freshwater Creek watershed will not reverse recovery of the peak flow impacts associated with the removal of vegetation within the watershed. This determination appears partially based on the Pacific Lumber Company flooding analysis, but has not been peer reviewed, and does not include

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<sup>6</sup> Freshwater Slough is part of the watershed and will be addressed, along with its tributaries, during the TMDL process. However, for purposes of this discussion and report, references to Freshwater Creek are for areas above the slough.

sediment inputs from all source(s) (including from harvest and related activities and from streambank and channel erosion resulting from increased stream flows). Staff does not concur with this analysis, however, based on this determination, CDF has approved a number of plans in the watershed.

Regional Water Board staff have filed non-concurrences with the second review team chair's recommendation for approval on most of these plans, and in early 2001, requested that the State Water Resources Control Board file a Head of Agency Appeal on one of these plans (THP 1-00-069 HUM). However, no appeal was filed. To date, approximately half of these plans have been harvested.

As noted above, Pacific Lumber Company has been conducting Level II watershed analysis in the Freshwater Creek watershed since 1999 and has completed portions of the analysis, including but not limited to: the resource assessment component, proposal of prescriptions by Pacific Lumber Company and by the signatory agencies, and assemblage of a scientific review panel to review the proposed prescriptions. The charge of the scientific review panel with respect to the proposed prescriptions is to determine whether they are: 1) based on the best available science; 2) most compatible with Pacific Lumber Company's operational needs, and 3) protective of the aquatic habitat. Staff and independent reviews of the watershed analysis documents to date have been largely critical of the methods employed and the resultant data generated. In addition, reviewers have expressed concerns that the conclusions drawn and presented in the documents are not supported by the data, which has a high level of uncertainty.

Regional Water Board staff have recently begun working with Pacific Lumber Company to add to the company's existing monitoring efforts within the watershed, with the aim of developing a watershed-wide monitoring and reporting program for the Freshwater Creek watershed. In addition, Regional Water Board staff have drafted a monitoring and reporting program for a specific THP in the Freshwater Creek watershed (THP 1-01-201 HUM). Regional Water Board staff have presented these proposed programs to PL Pacific Lumber Company, and discussions are currently underway between staff of the Regional Water Board and Pacific Lumber Company. If consensus between the company and staff is reached on the needed monitoring, then staff has indicated to the company that a cooperative monitoring effort will be utilized, rather than issuance of an order. Regional Water Board staff have identified fourteen THPs in the Freshwater Creek watershed which are potential candidates for Basin Plan compliance or instream effectiveness monitoring (including THP 1-01-201 HUM), and have been conducting field reviews both of prospective monitoring stations identified during a desk review as well as assessing existing water quality or stream channel monitoring stations within the watershed. Staff anticipate that these efforts will continue through early summer 2002.

Other technical information which needs to be adequately gathered and assessed includes a road inventory and landslide prevention and remediation strategy. Finally, at this time, the Board has directed staff to commence the TMDL process in the Freshwater Creek watershed. Regional Board staff anticipate presenting the TMDL to the Board for consideration in August 2003.

Bear Creek:

Bear Creek is about one quarter the size of Freshwater Creek. Pacific Lumber Company owns 95% of the 5,446-acre Bear Creek watershed. The remaining 5% is owned collectively by another private landowner, CalTrans, and California State Parks. Nearly 60% of the watershed has been harvested since 1988, 16.7% of which has been proposed in THPs since 1999. Pacific Lumber Company's annual rate of harvest in the watershed currently appears to be 6.5% of its ownership based on plans submitted since January 1, 2000. Pacific Lumber has conducted some physical and biological monitoring related to stream morphology and aquatic habitat in Bear Creek over the last two years. Results from this monitoring confirm that the aquatic habitat in Bear Creek is showing some recovery, but has still not achieved properly functioning conditions and is still impaired. The channel was seriously aggraded from multiple landslides, including a large event that filled the channel bottom, including all riffles and pools with several feet of sediment for several stream miles on New Year's Day, 1997. This catastrophic event seriously affected channel morphology, and also obliterated habitat improvements placed in the channel by DFG and the Pacific Lumber Company between the years 1988 and 1997. The two worked cooperatively to install a total of \$125,750 of habitat improvements in the channel over the 10-year period. These improvements were buried by gravel discharges during the large landslide event of 1997.

Stitz Creek:

Stitz Creek is about one-eighth the size of Freshwater Creek. Pacific Lumber Company owns 100% of this 2587-acre watershed, and has harvested over 50% of the land since 1974. The annual rate of harvest (2.3%) during 1987-1997 declined from the annual rate (3.7%) seen between 1974-1987. A current annual harvest rate of 3.0% is projected based on plans submitted since January 1, 2000. Sediment impairment exists in the watershed, but monitoring information is limited. Some THP-specific turbidity monitoring has been conducted by Pacific Lumber Company in Stitz Creek (THP 1-98-089 HUM), and the data suggest that timber harvest activities have resulted in elevated turbidity levels. Additional THP-specific and watershed wide monitoring is needed in this watershed.

In the Stitz Creek watershed, three THPs have been submitted in the last two years. Regional Water Board staff recommended water quality monitoring for two THPs that proposed high impact practices. These recommendations were not agreed to and, therefore, not incorporated into the THP. Regional Water Board staff filed non-concurrences for these plans.

Jordan Creek:

Jordan Creek is about one-sixth the size of Freshwater Creek. Pacific Lumber Company owns about 98% of the 3072-acre watershed, and the annual harvest rate accelerated from 0.7% during 1974-1987 to 3.8% during 1987-1997. About 38% of the watershed was harvested from 1987 through 1997. A current annual harvest rate of 5.4% is projected based on plans submitted since January 1, 2000. Sediment impairment exists in the watershed, but monitoring information is limited. Some THP-specific turbidity monitoring has been conducted by Pacific Lumber in Jordan Creek (THP 1-99-328 HUM), and the data suggest that timber harvest activities have resulted in elevated turbidity levels. Additional THP-specific and watershed wide monitoring is needed in this watershed.

In the Jordan Creek watershed Regional Water Board staff has recommended water quality monitoring for THPs that proposed high impact practices. These recommendations were not agreed to and, therefore, not incorporated into the THPs. Regional Water Board staff filed non-concurrences for these plans.

## **5. PRIORITIES FOR REQUESTING REPORTS OF WASTE DISCHARGE IN THESE FOUR WATERSHEDS**

Regional Water Board staff are considering if, when and how to request ROWDs for Freshwater, Bear, Stitz and Jordan Creeks, all sediment impaired watersheds. Any new discharges of soils will add to the existing poor watershed conditions and impede recovery further. For this reason, these watersheds are a priority for considering whether to request ROWDs. However, not all THPs in these watersheds pose the same degree of threat, nor do all watersheds or sub-watersheds pose the same level of impairment. Further, staffing resources are not unlimited, and need to be wisely allocated to obtain the greatest water quality improvement relative to the staff resource investment.

THPs that threaten to discharge waste into these watersheds have been evaluated to consider key factors which have bearing on whether the Basin Plan water quality objectives and prohibitions will be exceeded. Table 5-8 summarizes the current and proposed THPs within Freshwater Creek, Bear Creek, Stitz Creek and Jordan Creek watersheds.

The following table contains references to stream types and abbreviations.

### **Silviculture & Yarding**

**Evenaged** = even-aged management (Includes: clearcutting, rehabilitation, seed tree seed, seed tree removal, shelterwood prep, shelterwood seed, shelterwood removal, and right-of-way harvesting)

**Unevenaged** = uneven-aged management (Includes: selection and transition harvesting)

**Intermediate** = (Includes: commercial thinning)

**T** = tractor yarding, where tractors drag logs to the landing

**C** = cable yarding, where at least one end of the log is generally suspended from the ground and attached to a cable pulling it to the landing

**H** = helicopter yarding, where logs are carried to the landing by helicopter

### **Other Factors**

**Winter Ops** = Operations will be conducted during winter periods (Includes: falling, yarding, and/or hauling.)

**Site Prep** = The site will be prepared for planting after harvest by burning or mechanical means.

**New Road** = New road will be constructed as part of the plan.

**Receiving Waters**

**Class I** = a stream supporting fisheries or domestic water supplies

**Class II** = a stream supporting aquatic habitat

**Class III** = a stream which flows in immediate response to rain, does not contain aquatic habitat, but is capable of transporting sediment to Class I and II watercourses

**Table 5. Current and Proposed THPs for the Freshwater Creek Watershed.**

THP	Subwatershed	Harvest Acres	Silviculture & Yarding	Other Factors	Receiving Waters	% Watershed Harvested	Status
01-201	Mainstem Freshwater	191	Even / Interm. T - C	Winter Ops Site Prep New Road = 24,770'	Class I, II and III	1.0%	Approved
01-451	McCready / Cloney Gulch	138	Evenaged T - C	Winter Ops Site Prep New Road = 2,380'	Class I, II and III	0.7%	Approved
01-428	Falls / Graham Gulch	138	Evenaged T - C	Winter Ops Site Prep New Road = 1,550'	Class I, II and III	0.7%	Approved
01-325	Little / Upper Freshwater	92	Evenaged T - C	Winter Ops Site Prep New Road = 650'	Class I, II and III	0.5%	Approved
01-209	Upper Freshwater	100	Intermediate T	Winter Ops New Road = 8,350'	Class II and III	0.5%	Approved
01-378	Little Freshwater	87	Even/Uneven T - C	Winter Ops Site Prep New Road = 2,200'	Class I, II and III	0.4%	Approved
00-112	Mainstem Freshwater / Graham Gulch	95	Evenaged T - C	Winter Ops Site Prep	Class I, II and III	0.5%	Approved
01-193	Little Freshwater	85	Even/Uneven T - C	Winter Ops Site Prep	Class I, II and III	0.4%	Approved
01-389	Cloney Gulch	89	Evenaged T - C	Winter Ops Site Prep	Class II and III	0.4%	Approved
01-411	McCready / Cloney Gulch	88	Even/Uneven T - C	Winter Ops Site Prep	Class I, II and III	0.4%	Approved
01-456	Little / Upper Freshwater	111	Evenaged T - C	Winter Ops Site Prep	Class II and III	0.6%	Pending Approval
00-216	Cloney Gulch	161	Evenaged T - C	Winter Ops Site Prep New Road = 250'	Class II and III	0.8%	Approved



**Table 5 (continued). Current and Proposed THPs for the Freshwater Creek Watershed.**

00-032	McCready	51	Evenaged T - C	Winter Ops Site Prep New Road = 4,080'	Class I, II and III	0.3%	Approved
00-106	Mainstem Freshwater	86	Evenaged T - C	Winter Ops Site Prep New Road = 2,650'	Class II and III	0.4%	Approved
00-069	Little Freshwater	93	Even/Uneven T - C	Winter Ops New Road = 2,200'	Class I, II and III	0.5%	Approved
01-453	Upper Freshwater	50	Evenaged T - C	Winter Ops Site Prep New Road = 1,450'	Class I, II and III	0.3%	Approved
00-428	Upper Freshwater	50	Even/Uneven T - C	Winter Ops Site Prep New Road = 800'	Class II and III	0.3%	Pending Approval
01-208	Little Freshwater	49	Evenaged T - C	Winter Ops Site Prep New Road = 375'	Class I, II and III	0.2%	Approved
01-200	Little Freshwater	81	Evenaged T - C	Winter Ops Site Prep	Class I, II and III	0.4%	Approved
00-114	Little Freshwater	69	Evenaged T - C	Winter Ops Site Prep	Class II and III	0.3%	Approved
00-253	Upper Freshwater	62	Evenaged T - C - H	Winter Ops Site Prep New Road = 2,400'	Class II and III	0.3%	Approved
00-085	Mainstem Freshwater	31	Even/Uneven/ Intermediate T	Winter Ops New Road = 325'	Class I, II and III	0.2%	Pending Approval
01-446	Little Freshwater / Cloney Gulch	20	Evenaged T - C	Winter Ops Site Prep New Road = 182'	Class I, II and III	0.1%	Pending Approval
01-154	Upper Freshwater	1	Evenaged T	Winter Ops Site Prep	N/A	0.0%	Approved

**Total Harvest = 2018 acres**  
**Total New Roads = 54,612 feet**

**Total = 10.1%**

**Table 6. Current and Proposed THPs for the Bear Creek Watershed.**

THP	Subwatershed	Harvest Acres	Silviculture & Yarding	Other Factors	Receiving Waters	% Watershed Harvested	Status
01-234	N/A	206	Even/Interm. T - C	Winter Ops Site Prep New Road = 3,365'	Class I, II and III	3.8%	Approved
01-061	N/A	120	Even/Interm. T	Winter Ops Site Prep New Road = 250'	Class II and III	2.2%	Approved
99-522	N/A	54	Evenaged T - C	Winter Ops Site Prep New Road = 4,330'	Class II and III	1.0%	Approved
01-112	N/A	64	Even/Interm. T	Winter Ops Site Prep New Road = 8778'	Class I, II and III	1.2%	Approved
99-419	N/A	50	Evenaged C	Winter Ops Site Prep	Class II and III	0.9%	Approved
99-382	N/A	56	Evenaged T - C - H	Winter Ops Site Prep	Class II and III	1.0%	Approved
01-100	N/A	44	Even/Interm. T - C - H	Winter Ops Site Prep New Road = 2,750'	Class II and III	0.8%	Approved
01-147	N/A	46	Even/Interm. T - C	Winter Ops Site Prep	Class II and III	0.8%	Approved
01-056	N/A	69	Even/Interm. T - H	Winter Ops New Road = 800'	Class I, II and III	1.3%	Approved
99-420	N/A	36	Evenaged T	Winter Ops Site Prep	Class II and III	0.7%	Approved
01-007	N/A	81	Evenaged H	Winter Ops	Class I, II and III	1.5%	Approved
00-078	N/A	25	Evenaged T - H	Winter Ops Site Prep	N/A	0.5%	Approved
01-005	N/A	14	Evenaged H	Winter Ops	Class II	0.3%	Approved

**Total Harvest = 865 acres**  
**Total New Roads = 20,273 feet**

**Total = 15.9%**

**Table 7. Current and Proposed THPs for the Stitz Creek Watershed.**

THP	Subwatershed	Harvest Acres	Silviculture & Yarding	Other Factors	Receiving Waters	% Watershed Harvested	Status
00-415	N/A	30	Evenaged H	Winter Ops Site Prep	Class II and III	1.2%	Approved
01-141	N/A	60	Even/Uneven C-H	Winter Ops Site Prep New Road = 100'	Class I, II and III	2.3%	Approved
01-152	N/A	63	Evenaged T - C- H	Winter Ops Site Prep	Class II and III	2.4%	Approved
<b>Total Harvest =</b>		<b>153</b>	<b>acres</b>	<b>Total =</b>		<b>5.9%</b>	
<b>Total New Roads =</b>		<b>100</b>	<b>feet</b>				

**Table 8. Current and Proposed THPs for the Jordan Creek Watershed.**

THP	Subwatershed	Harvest Acres	Silviculture & Yarding	Other Factors	Receiving Waters	% Watershed Harvested	Status
99-328	N/A	55	Evenaged T - C - H	Winter Ops Site Prep New Road = 5,400'	Class I, II and III	1.8%	Approved
02-003	N/A	38	Evenaged T - C - H	Winter Ops Site Prep New Road = 3,000'	Class I, II and III	1.2%	Pending Approval
01-180	N/A	189	Even/Uneven/ Intermediate T - C	Winter Ops Site Prep New Road = 3,606'	Class II and III	6.2%	Approved
01-249	N/A	60	Even/Uneven T - C - H	Winter Ops Site Prep New Road = 952'	Class II and III	2.0%	Approved
00-359	N/A	23	Evenaged T - C - H	Winter Ops Site Prep	Class II and III	0.7%	Approved
99-382	N/A	28	Evenaged T - C - H	Winter Ops Site Prep	Class II and III	0.9%	Approved
00-445	N/A	26	Evenaged H	Winter Ops Site Prep	Class II and III	0.8%	Approved
99-476	N/A	74	Evenaged H	Winter Ops	Class II and III	2.4%	Approved
00-455	N/A	16	Evenaged T - C - H	Winter Ops Site Prep	Class III	0.5%	Approved
01-218	N/A	10	Evenaged T - C - H	Winter Ops Site Prep	Class II and III	0.3%	Approved
<b>Total Harvest =</b>		<b>519</b>	<b>acres</b>	<b>Total =</b>		<b>16.9%</b>	
<b>Total New Roads =</b>		<b>12,958</b>	<b>feet</b>				

Priorities for requesting reports of waste discharge should be focussed on what such an action could achieve. If a ROWD is requested for a specific plan, then additional technical information relative to that plan would need to be submitted beyond that available through the timber harvest plan review process. The information required would be directed toward obtaining details on the proposed operation. Data projecting estimated earthen discharges and threatened discharges would need to be refined, and associated additional mitigations developed to avoid or minimize such discharges. Once adequate information is received, then staff would evaluate the submittal to determine whether the existing THP plan approval process could incorporate the mitigations (through amendment of an existing approved plan or modification of a proposed plan). If not, then waste discharge requirements could be drafted to require the mitigations as part of the conditions of the permit.

In the THP-specific approach, priorities would result from a ranking of threat to water quality of the individual plans discussed above. However, given the number of plans, resources would limit requests for waste discharge requirements to probably only the top 10% of all plans. Based on the information available today, the highest risk plans are generally those with winter operations, new road construction, tractor yarding, and clearcutting. However, additional technical information would need to be gathered to better rank or refine the priority of any group of THPs within any watershed.

If a ROWD is requested for a watershed or sub-watershed, then similarly additional technical information on the watershed (or sub-watershed) as a whole would be needed, including information on existing activities and operations. This option could conceivably cover past, current and future man-made discharges of waste. For example, a road related landslide that was from past practices and is currently discharging soils may be covered by the ROWD and a potential WDR. This landscape-oriented ROWD could require road inventories, landslide assessments, and similar large-scale information submittals. Once adequate information is received, then staff could draft waste discharge requirements that could address landslide incidence and rate of harvest in a watershed, among other matters.

A watershed-wide or sub-watershed wide approach would encompass all discharges of soils within the watershed area. Any person proposing and/or discharging soils would be subject to the ROWD and any potential WDRs. Implementing the ROWD and any potential WDR could be problematic where there are a number of landowners within the watershed or sub-watershed.

The magnitude of the effort involved to obtain and report adequate information for a watershed (or sub-watershed) ROWD is not small, nor does the effort stop at submittal of the information, because waste discharge requirements would be built around the information. The effort approaches that required for development of a TMDL for a single ownership when the activity is on a watershed scale. However, this approach avoids piece-mealing cumulative effects analysis. Based on the information available today, the priority for this effort would be the (sub-watershed) upper mainstem of Freshwater Creek, followed by other sub-watersheds in Freshwater Creek, then Bear Creek, Jordan Creek, and finally Stitz Creek.

## 6. RECOMMENDED ACTION

The Board has indicated that it recognizes the sediment impairments in these watersheds, and has further indicated that TMDLs are the appropriate mechanism to develop a comprehensive strategy to provide water quality protection in the watersheds. The Board also recognized that TMDLs take time to develop, implement, and obtain on-the-ground improvements. In the interim, prior to the successful implementation of a TMDL, land use activities within these watersheds could continue to contribute to water quality degradation. The objective of any interim action should be to preclude further degradation.

Staff has not requested ROWDs nor developed WDRs for timber harvest operations in over twenty years, however these valuable tools remain the primary mechanism to obtain preventive actions when the existing THP review and approval process is insufficient. All recent uses of waste discharge requirements in timber harvesting have been triggered by a specific harvest plan. No watershed-wide WDRs encompassing several THPs has been utilized by the Regional Water Board in the past, and the use of a report of waste discharge on a watershed-wide scale may be problematic at this time for Freshwater Creek and the other watersheds.

The Board has now reviewed the technical evaluation process, and the resource considerations which need to be assessed whenever a ROWD is requested. Such requests will never be made lightly, and all requests by the Executive Officer are subject to review—either by the Regional Water Board at the request of an aggrieved party at any time or formally by the State Water Board upon petition of an aggrieved party within 30 days of the delegated action, or both. Staff recommends that the Executive Officer continue to exercise her judgement--balancing resource needs, priorities, and other matters--on when and if to request a report of waste discharge. With respect to these four watersheds, staff recommends that the Board direct that a report of waste discharge be strongly considered by the Executive Officer on specific timber harvest plans when necessary to obtain additional, specific mitigations beyond those obtainable through the timber harvest plan review process for all Freshwater Creek timber harvest plans, and when in accordance with resources and priorities. This affirmative direction may facilitate obtaining the additional mitigations through the timber harvest planning process and ultimately avoid the need for ROWDs.

Water quality monitoring and other technical information will continue to be obtained in Freshwater Creek. Regarding Bear, Jordan, and Stitz Creeks, staff also will continue to obtain necessary monitoring and other technical information as previously directed in February.

### PRELIMINARY STAFF RECOMMENDATION:

The Board should direct that a report of waste discharge be strongly considered by the Executive Officer on specific timber harvest plans when necessary to obtain additional, specific mitigations beyond those obtainable through the timber harvest plan review process for all Freshwater Creek timber harvest plans, and when in accordance with priorities.